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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,604	10/17/2003	Navpreet Singh	SP-1298.1	9429

7590 07/30/2004  
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EXAMINER

WEIER, ANTHONY J

ART UNIT	PAPER NUMBER
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1761

DATE MAILED: 07/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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## Office Action Summary

Application No.

10/688,604

Applicant(s)

SINGH, NAVPREET

Examiner

Anthony Weier

Art Unit

1761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 34-59 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 34-51 and 54-59 is/are rejected.
- 7) ☒ Claim(s) 52 and 53 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. Claims 34-46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 34 is indefinite in that it contains two steps labeled "(d)".

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 34-37, 40-51, and 54-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lawhon (U.S. Patent No. 4,420,425).

Lawhon discloses a process of preparing a soy protein concentrate comprising the steps of providing a defatted soybean material; mixing same with water to produce a protein slurry and adjusting same to a pH of 7.0; removing insoluble material by filtering and/or centrifuging; heating treating the remaining mixture; subjecting same to an ultrafiltration step; and eventually spray drying same to provide a soy protein concentrate (e.g. cols. 8-10, Examples).

The claims call for heat treating the remaining mixture (after removing insoluble material) at a temperature above 93 C. Although Lawhon discloses a heating step,

same only makes reference to an example of "about 65 C for 30 minutes."

Nevertheless, Lawhon does suggest using higher temperatures for a shorter time interval (i.e. col. 9, lines 58-62). Absent a showing of unexpected results, it would have been obvious to one having ordinary skill in the art at the time of the invention to have employed higher temperatures, including those above 93 C, as a matter of preference to decrease the time required for the pasteurization step and, therefore, to shorten the time it would take for the whole process.

The claims further call for the ultrafiltration step to be conducted at a temperature of between about 25 C and about 50 C. Lawhon does not specifically restrict this temperature to a particular range, but does set forth a variety of feed temperatures in the examples (Example 1, 61-69 C; Example 5, 55 C; etc.). Absent a showing of unexpected results, it would have been further obvious to have arrived at the use of about 25 C to about 50 C as a matter of preference depending on the amount of cooling desired between steps, the particular temperature used for the heating step and time/distance to get to the ultrafiltration unit, etc.

The instant claims further call for heat treating at above 93 C by jet cooking. Although Lawhon is silent regarding the particular method employed to heat the soybean slurry, jet cooking as a heating method is well known. Absent a showing of unexpected results, it would have been further obvious to have employed same as an art recognized alternative for heating.

The claims further call for various compositional details of the composition to be treated. More specifically, these details include the particular protein content, isoflavone

content, soyasapogenols content, crude fiber content, solids content, moisture content, raffinose/stachyose content, fat content, moisture content, carbohydrate content, and the PDI value of the soybean material. However, the particular starting soybean material is well known and available commercially (e.g. instant specification, page 7). Absent a showing of unexpected results, it would have been further obvious to have treated such soybean material as a matter of preference depending on, for example, availability and cost of same.

***Allowable Subject Matter***

3. Claims 38 and 39 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
4. Claims 52 and 53 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record does not disclose nor teach the particular molecular cutoff for the ultrafiltration membrane as called for in the instant claims. Moreover, Lawhon teaches away from this particular ultrafiltration molecular cutoff called for in the instant claims (e.g. col. 10). It would not have been obvious to one having ordinary skill in the art at the time of the invention to have modified the ultrafiltration molecular weight cutoff as called for in the instant claims since Lawhon restricts doing so.

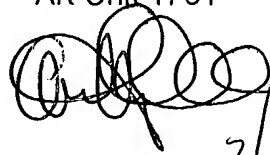
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Weier whose telephone number is 571-272-1409. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anthony Weier  
July 28, 2004

Anthony Weier  
Primary Examiner  
Art Unit 1761

  
7/28/04